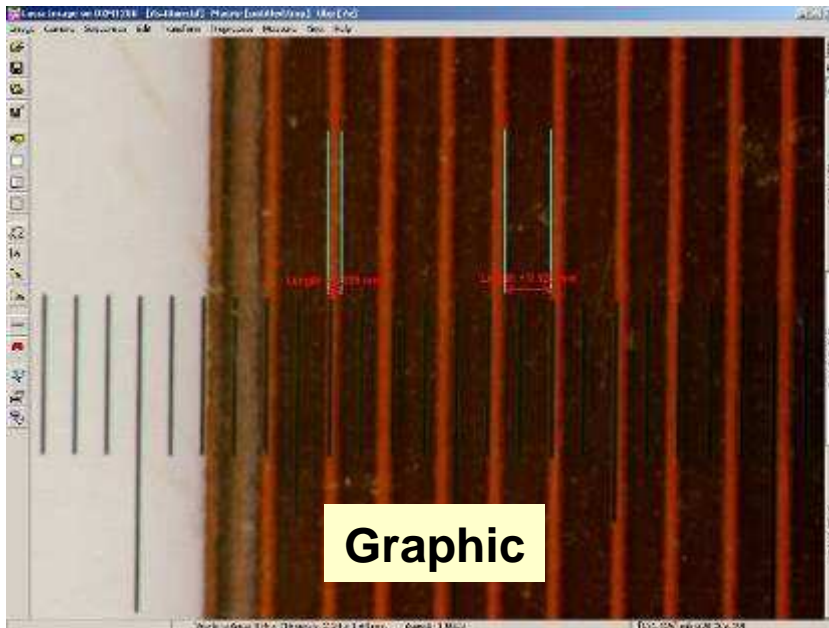


Flex Status & AID

A.Nomerotski, 27 Oct 2010

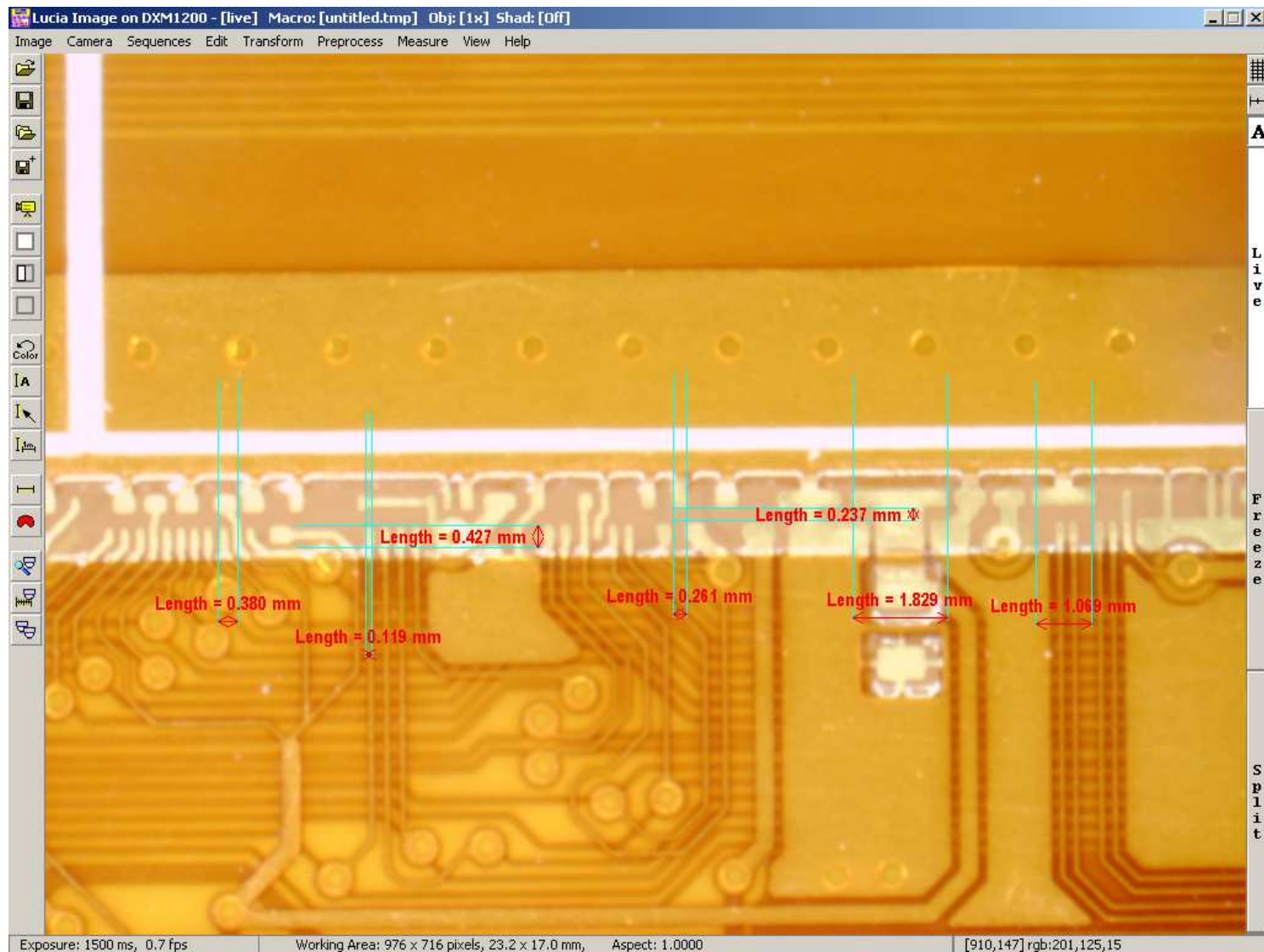
Flexes

- Graphic: Overetching of lines
 - ◆ 75 → 40 micron, Graphic not forthcoming to fix problems
- Optiprint: good quality, first flex assembled



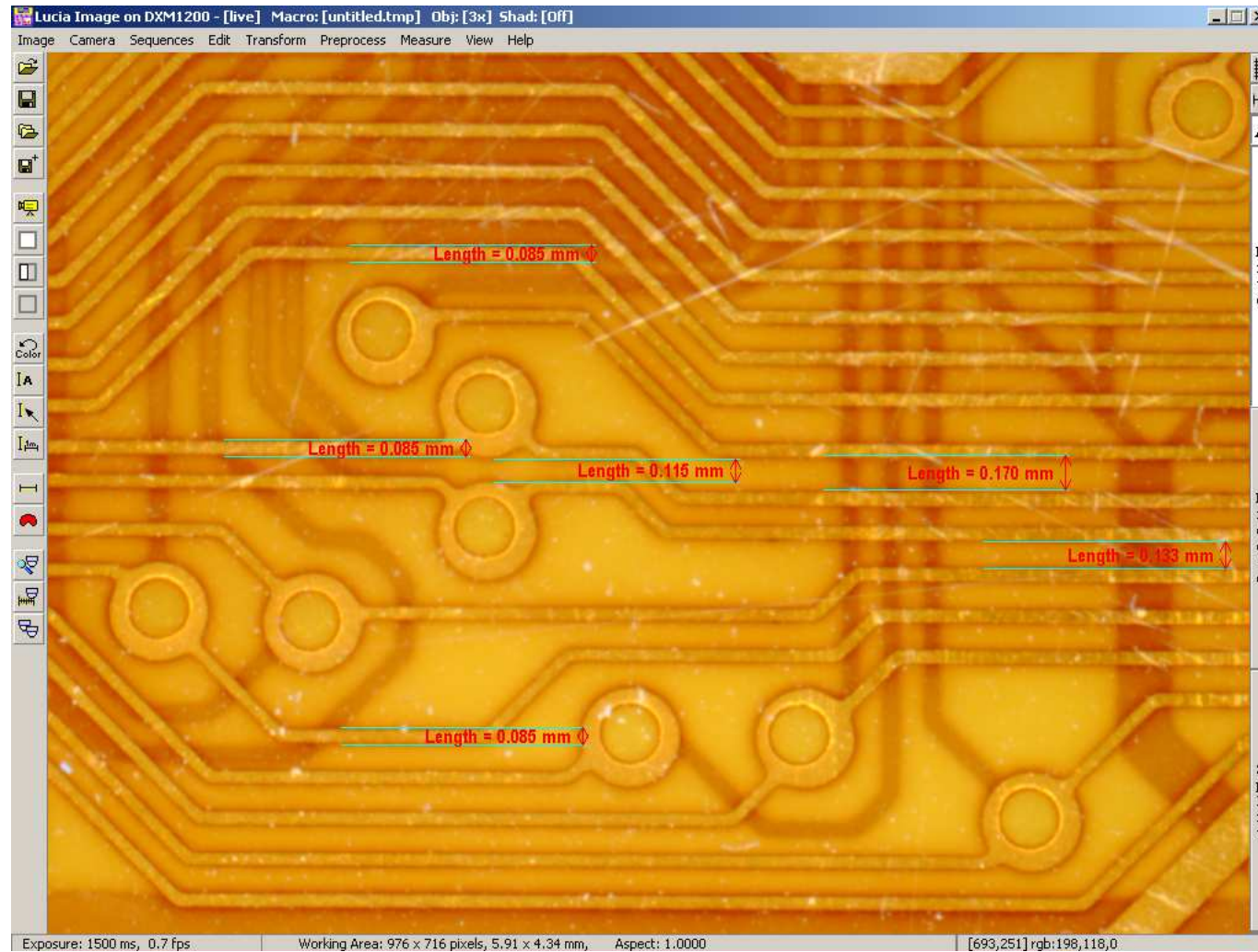
Optiprint Flex

- 0.14 mm thickness



Optiprint

- 0.14 mm thickness

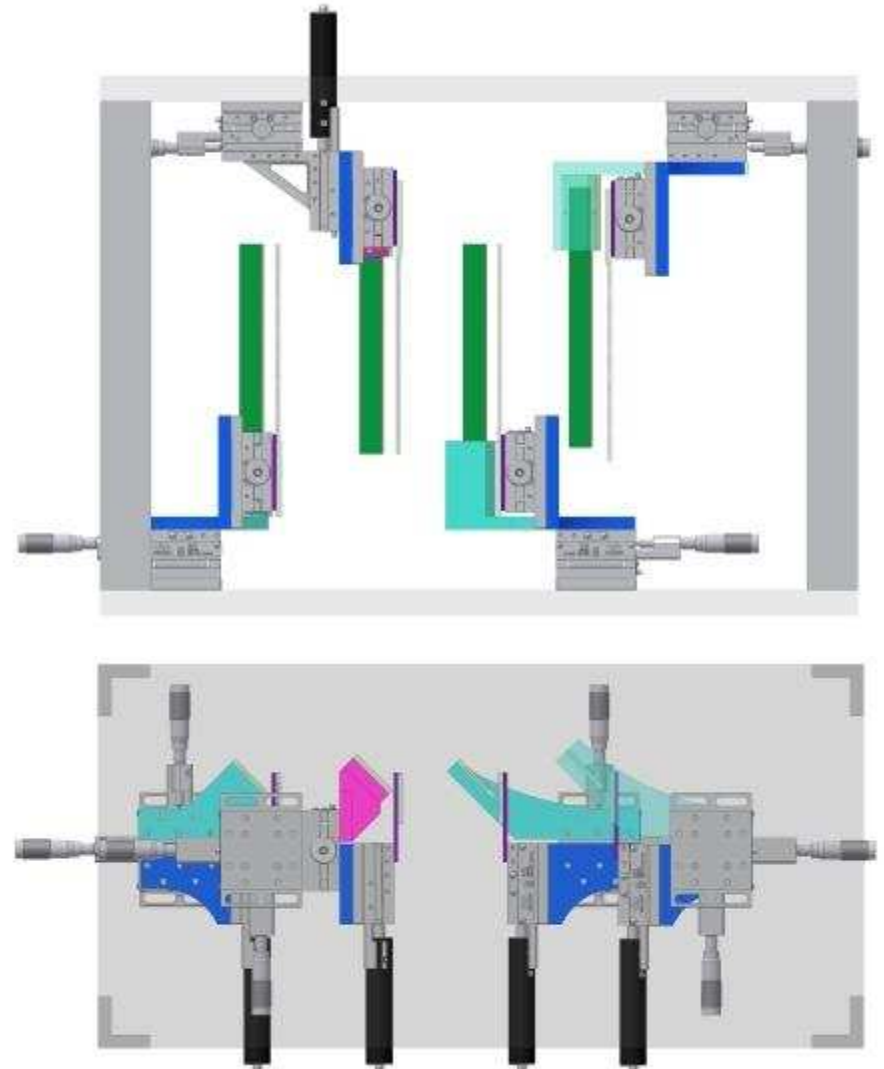
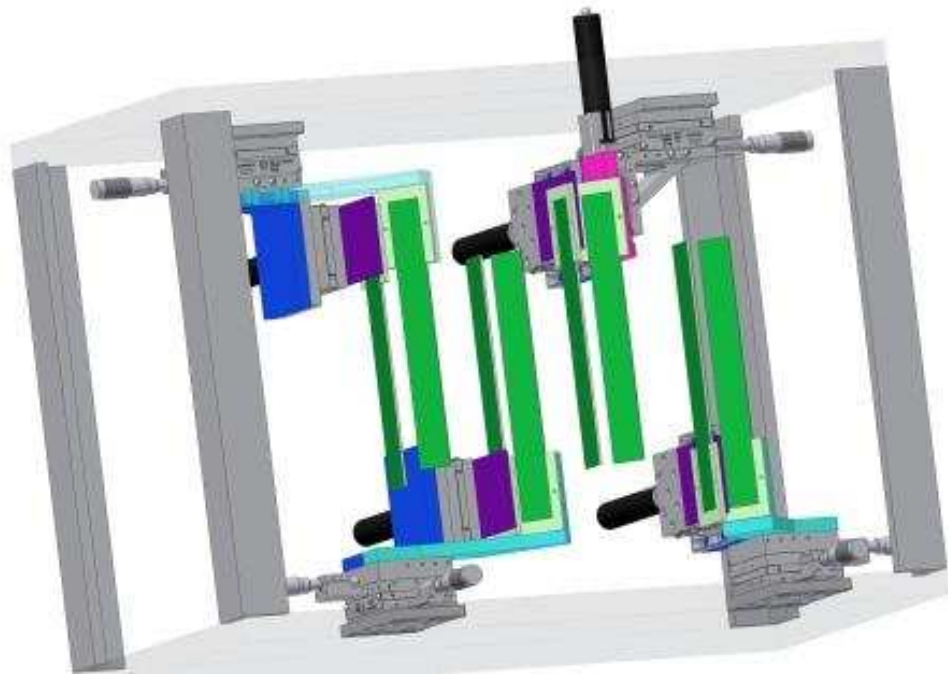


Next Steps

- Kapton flex
 - ◆ Check bonding
 - ◆ Check clock propagation
- Flex layout
 - ◆ Investigate variations of layout (Pete)
 - ▲ Mirrored design – ready
 - ▲ Traces under M26
 - ▲ Thinner traces(?)
- Al traces
 - ◆ In touch with a “company” in Kharkhov
 - ◆ 10 micron kapton, 10 micron thick Al traces
 - ◆ Checked our design – ok
 - ◆ Quotation soon

AID Layout

- Draft 0 prepared by Stephanie Yang

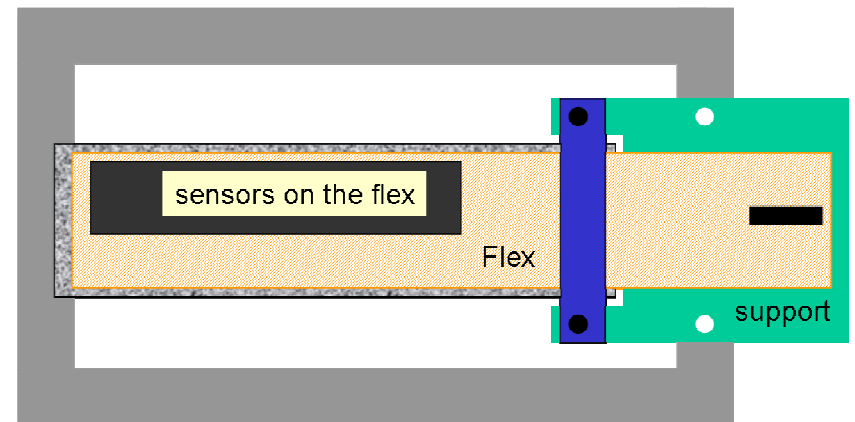
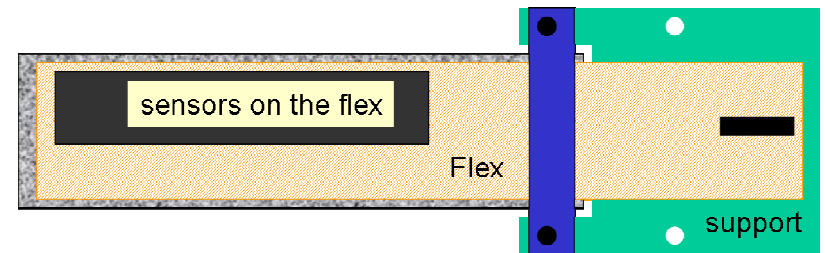


AID : Next Steps

- Change vertical stage in station 2
- Add rotation for one ladder in Station 2

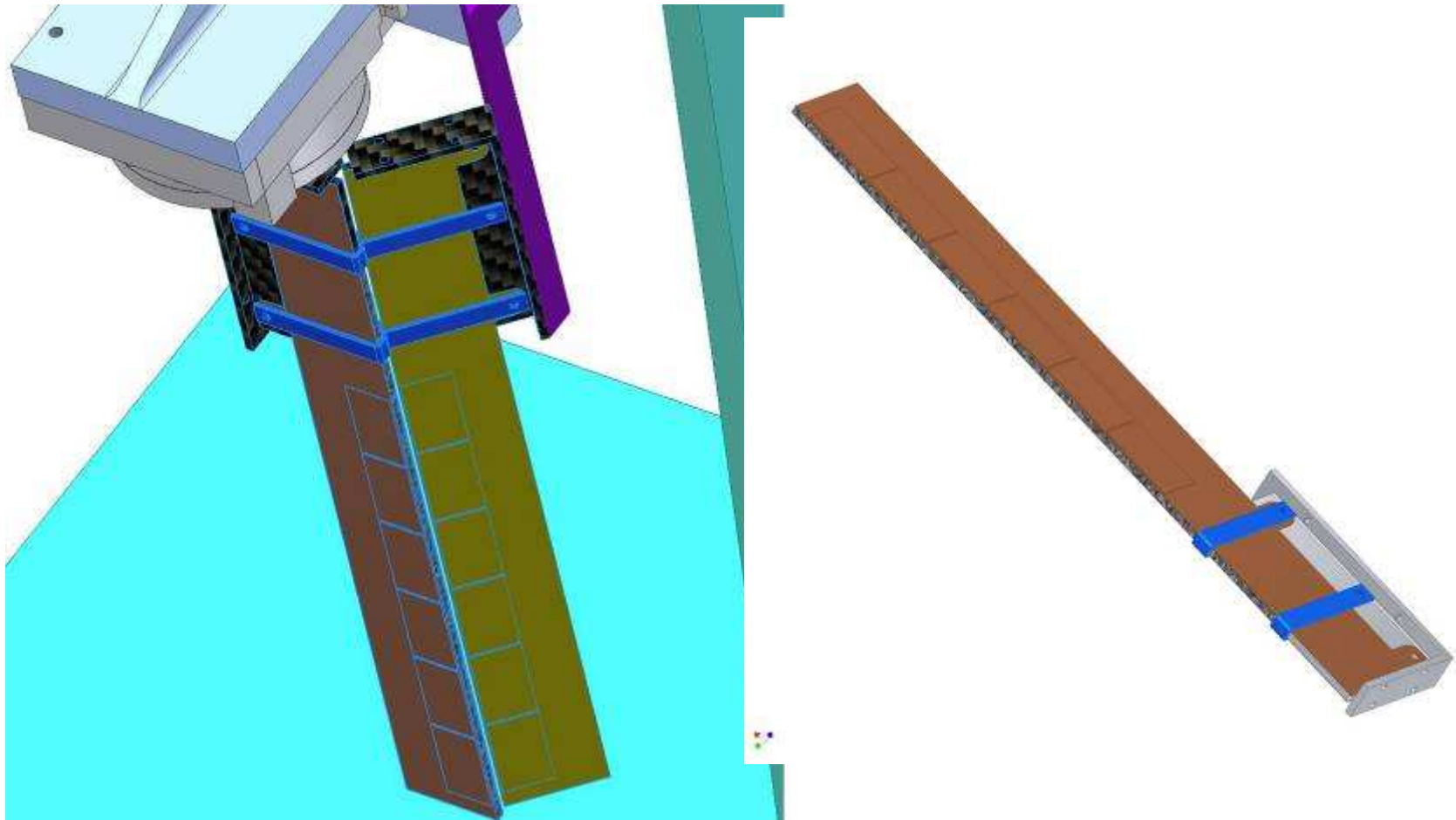
- all done

- FEA of standalone ladder to understand how rigid it is
 - ◆ Vertical orientation
 - ◆ Horizontal orientation
 - ◆ Different length, up to 25 cm?
 - ◆ Conclude if ladder needs a frame to support the other end
- FEA of standalone ladder with frame
- FEA of the whole ladder support



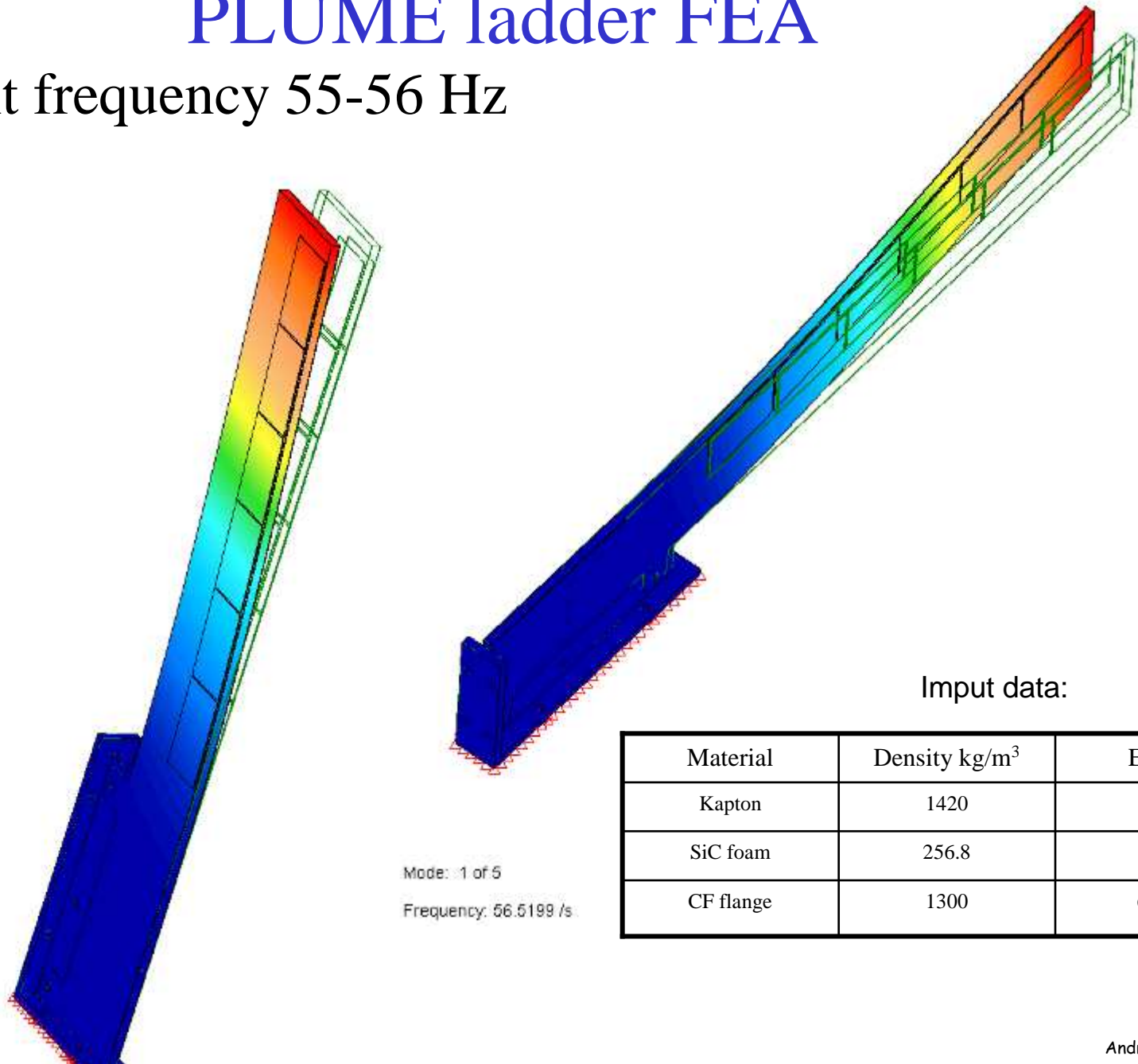
PLUME ladders in AID

- Support plate of the ladder needs mods



PLUME ladder FEA

Resonant frequency 55-56 Hz



Input data:

Material	Density kg/m ³	E MPa
Kapton	1420	2500
SiC foam	256.8	2760
CF flange	1300	60000



3D Printer in DO



Printed 1:1 scale PLUME ladder